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ART UNIT	**PAPER NUMBER**
2624	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/443,677	FARRELL, MICHAEL E.	
	Examiner	Art Unit	
	King Y. Poon	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4 and 6-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4,6-9,15 and 17-20* is/are allowed.

6)☒ Claim(s) *1,10-14 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *4/30/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 13, 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "at least one of the set output media" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 is claiming a set of output media. The "at least one of the set output media" seems that there are more than one output media. It is unclear what the other set of output media that the "at least one of the set output media" is referring to.

Claim 13 recites the limitation "wherein individual sheets of output media" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear, whether the output media is referring to the output media that the print job content is to be printed of claim 10, line 6 or the output media that is having both the job content and the marker of claim 10, line 10.

Claim 14 recites the limitation "wherein individual sheets of output media" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear, whether the output media is referring to the output media that the print job content is to

be printed of claim 10, line 6 or the output media that is having both the job content and the marker of claim 10, line 10.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 10-14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ojha (US 4,987,447) in view of Kurogane (US 5,126,858).

Regarding claim 10: Ojha teaches a method of processing a print job (jobs, column 2, line 1-6; e.g., the print job/production run of a print shop for copying originals, column 3, lines 25-28) using abstract finishing (printing instruction sheet used for a print job, column 3, lines 20-25, column 1, lines 40-45, column 2, lines 1-6, 40-43) comprising: receiving the print job (reproduction apparatus receives a print job, e.g., a copy job, columns 1-5, column 3, lines 25-30), said print job including one or more desired finishing instructions (the print job uses print functions of the reproduction apparatus such as stapling, column 2, lines 39-42. In order for the print job to be finished according to the print job requirements, the reproduction apparatus needs to be set up properly, column 2, lines 1-6. For example, if the print job calls for using stapling

function, the reproduction apparatus is to be set up such that the reproduction apparatus would perform the stapling functions. Therefore, the stapling information in the print job corresponding to the set up instruction for stapling instructs the reproduction apparatus to be set up properly to perform stapling. Therefore, the print job includes desired finishing instruction, e.g., set up instruction for stapling) and print job content (e.g., the images of the document to be scanned, column 3, lines 37-40) distinct from the finishing instruction (one is job content, image of document, column 3, line 39, and one is finishing instructions on the control sheet, column 3, line 38), said job content being the portion of the print job that is to be printed on one or more individual sheets of output media (the image of the document is being scanned and is to be printed by the marking engine, column 2, lines 43-50, onto output media such as a receiver sheet, column 3, line 25); generating a marker (machine readable set up instructions, column 3, lines 20-30, or human readable indicia correspond to the set up instructions of a control sheet, column 3, lines 30-35) representing at least one of the desired finishing instructions (the setup instructions in the control sheet, column 2, lines 1-6; the set up instructions are used to set up the reproduction apparatus for carrying out specific functions for the print job; e.g., stapling); and placing (inserted, column 3, line 27) the marker at a selected location relative (place on a control sheet inserted into the stack of the originals of the print job, column 3, lines 25-28) to the print job (the copy job/production run of a print shop, column 2, lines 1-6), said marker being placed on an output media (receiver sheet, column 3, lines 20-30).

Ojha does not teach the marker being placed on the same output media as the job content.

Kurogane, in the same area of using a control sheet for controlling a print job, teaches an individual control sheet/output media (e.g., fig. 2) comprise a print area (the whole control sheet is a print area, fig. 2) for printing detection marks (column 4, lines 64-69, column 5, lines 1-10) and a job content (e.g., 223, fig. 4) wherein the job content is being a portion of a print job which is to be printed on one or more individual sheet of output media (e.g., message ABCD is to be printed on 230a and 230b, fig. 5, column 6, lines 35-46). The detection marks are machine readable marks containing information.

Since Ojha teaches to place machine readable marks containing set up instruction information on a control sheet (column 3, lines 20-25), it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method to include: the marker being placed on the same output media as the job content.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method by the teaching of Kurogane because of the following reasons: (a) it would have reduced the cost for processing print jobs, as a whole, by using less output media-especially if the print job requires a lot of control sheet, or there are a lot of print jobs to be processed; and (b) it would speed up the print job process by scanning less output media/papers of the control sheets and the documents.

Note: the individual sheet of output media where the print job content is to be printed and the output media where the print job content (before it is being printed onto another output media) and the marker are placed are being interpreted as different output media.

Regarding claim 11: Ojha teaches converting the desired finishing instruction into a human-readable description of the desired finishing instruction (marker); and marking the human-readable description of the desired finishing instruction on a slipsheet. (Control sheet, column 3, lines 30-36)

Regarding claim 12: Ojha teaches converting the desired instruction into a machine-readable description of the desired finishing instruction (marker); and marking the machine-readable description of the desired finishing instruction on a slipsheet. (Receiver sheet/control sheet, column 3, lines 20-25)

Regarding claim 13: Ojha does not teach wherein individual sheets of output media each comprise a printed area and a border area, and the placing step comprises placing the marker on the border area of individual output media.

Kurogane, in the same area of using a control sheet for controlling a print job, teaches an individual control sheet (e.g., fig. 2) comprise a printed area (the area surrounded by a border where four detection marks are located, fig. 2, column 4, lines 64-69, column 5, lines 1-10) and a border area, (the border of the print sheet that contains the four detection marks, fig. 2) and the placing step comprises placing the marker (detection marks) on the border area of individual output media. The detection marks are machine readable marks containing information.

Since Ojha teaches to place machine readable marks containing set up instruction information on a control sheet (column 3, lines 20-25), it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method to include: individual sheets of output media each comprise a printed area and a border area, and the placing step comprises placing the marker on the border area of individual output media.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method by the teaching of Kurogane because of the following reasons: (a) placing the machine readable instructions on the border of the print sheet would have allowed the instructions information to be identified immediately after the start of a scanning operation as taught by Kurogane at column 5, lines 2-10, and (b) the area other than the border would be used as print area to further utilize the control sheet.

Note: each of the individual sheets of output media is being interpreted as control sheets, such as the control sheets of Ojha used for print jobs.

Regarding claim 14: As amended by claim 10, the job content is not the finishing instruction. Therefore, the job content is not printed at the same spot as the marking while both the marking and job content are placed on the control sheet. Claim 14 is being interpreted as: there is an area/spot in a control sheet that can be used to the print job content, the same spot/area can also be used to print the marking if the spot/area is not printed with job content. Each of the individual sheets of output media is

being interpreted as control sheets, such as the control sheets of Ojha used for print jobs.

Ojha does not teach wherein the control sheet comprise an area for job content, and the placing step comprise placing the marking on the area for job content.

Hurogane teaches wherein the control sheet comprise an area (right corner of 300, fig. 7) for job content, (312, fig. 7, column 7, lines 10-25) and the placing step comprise placing the marking (column 4, lines 64-66) on the area for job content.

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method to include: wherein the control sheet comprise an area for job content, and the placing step comprise placing the marking on the area for job content.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method by the teaching of Kurogane because of the following reasons: (a) it would have provided users with options of selecting where to print the job content and the markings and (b) it would have allowed users to customized the control sheet to fit users' need.

Regarding claim 16: Ojha teaches wherein the placing step comprises inserting a marker (e.g., machine readable or human readable set up instructions, column 3, lines 20-35) at compilation boundaries (stack of originals, column 3, lines 25-28; originals are within compilation boundaries of the print job because the originals are to be scanned to generate print data for the print job, column 3, line 25-28) within the print job. (The copy job/production run of a print shop, column 2, lines 1-6)

Allowable Subject Matter

2. Claims 4, 6-9, 15, 17-20 allowed.

Regarding claim 4: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein the second finishing operation is selected from "a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process." It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. However, DeHority fails to disclose selecting the second finishing operation from a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process, as claimed.

Regarding claim 6: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first

finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein "while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with information including the first finishing instruction." It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. Edens et al. (US 6,249,716) teaches placing a slip sheet relative to a set of output media. However, Eden and DeHority, either singularly or in combination, fail to anticipate or render the limitation: while applying the second finishing operation; placing a slip sheet, relative to the set of output media, with information including the first finishing instruction, obvious (to use in combine with other claimed limitations).

Regarding claim 9: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction wherein "while applying the second finishing operation; marking the set of output media with information including the first finishing instruction." It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of

output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. However, DeHority fails to disclose "marking the set of output media with information including the first finishing instruction," as claimed.

Regarding claim 15: The cited references taken individually or in combination fails to particularly disclosed generating a marker representing a desired finishing instruction of a print job, placing the marker at a selected location relative to a print job, wherein "the desired finishing instruction includes inserting additional media at a selected location relative to the print job, and the placing step comprises inserting the marker as a placeholder for the additional media." It is noted that the closest prior art, Ojha (US 4,987,447) teaches generating a marker representing a desired finishing instruction of a print job, placing the marker at a selected location relative to a print job. However, Ojha fails to disclose the desired finishing instruction includes inserting additional media at a selected location relative to the print job, and the placing step comprises inserting the marker as a placeholder for the additional media, as claimed.

Regarding claim 17: The cited references taken individually or in combination fails to particularly disclosed printing system comprising: a processor determining compatibility between a finishing element and a desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element, the selected compatible finishing instruction is supplied to the finishing element such that the finishing operation includes marking the print job with the desired finishing

instruction" It is noted that the closest prior art, DeHority (US 5,129,639) shows a similar printing system comprising: a processor determining compatibility between a finishing element and a desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element. However, DeHority fails to disclose the selected compatible finishing instruction is supplied to the finishing element such that the finishing operation includes marking the print job with the desired finishing instruction, as claimed.

Regarding claim 20: The cited references taken individually or in combination fails to particularly disclosed printing system comprising: a processor determining compatibility between a finishing element and a desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element, wherein the finishing operation applied by the finishing element is selected from "a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process." It is noted that the closest prior art, DeHority (US 5,129,639) shows a similar printing system comprising: a processor determining compatibility between a finishing element and a desired finishing instruction, and upon determining incompatibility, selecting a compatible finishing instruction for the finishing element. However, DeHority fails to disclose the operation applied by the finishing element is selected from a collating process, a registration process, a binding process, a cutting process, a hole forming process, and an abstract finishing process, as claimed.

3. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Regarding claim 1: The cited references taken individually or in combination fails to particularly disclosed a method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction and applying the second finishing operation such that a slipsheet placed relative to the set of output media in a location indicative of where the first finishing operation is to be performed." It is noted that the closest prior art, DeHority (US 5,129,639), shows a similar method of finish processing a set of output media comprising: based on a determination to process the set of output media by other than a first finishing operation of a received first finishing instruction; substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction. However, DeHority fails to disclose, while substitute a second finishing instruction corresponding to a second finishing operation for the first finishing instruction, the second finishing operation is applied such that a slipsheet placed relative to the set of output media in a location indicative of where the first finishing operation is to be performed, as claimed.

Response to Arguments

4. As point out by the applicant, top of page 7, the claims were accidentally listed on line 5 instead of on line 6 in the Office Action Summary of paper number 4.

Applicant indicates, on top of page 7, States of the claims, that claims 13 and 14 have been rejected under U.S.C. 112 first paragraph is incorrect. Claims 13 and 14 have been rejected under U.S.C. 112 second paragraph as lacking sufficient antecedent basis.

5. Applicant's arguments filed on 8/15/2003 have been fully considered but they are not persuasive.

With respect to applicant's argument, on page 8, that claim 10 is allowable because Ojha does not teach marking representing the finishing instruction and the job content are placed on the same output media, has been considered.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Ojha teaches a method of processing a print job (jobs, column 2, line 1-6; e.g., the print job/production run of a print shop for copying originals, column 3, lines 25-28) using abstract finishing (printing instruction sheet used for a print job, column 3, lines 20-25, column 1, lines 40-45, column 2, lines 1-6, 40-43) having one or more desired finishing instructions (the print job uses print functions of the reproduction apparatus

such as stapling, column 2, lines 39-42. In order for the print job to be finished according to the print job requirements, the reproduction apparatus needs to be set up properly, column 2, lines 1-6. For example, if the print job calls for using stapling function, the reproduction apparatus is to be set up such that the reproduction apparatus would perform the stapling functions. Therefore, the stapling information in the print job corresponding to the set up instruction for stapling instructs the reproduction apparatus to be set up properly to perform stapling. Therefore, the print job includes desired finishing instruction, e.g., set up instruction for stapling) and print job content (e.g., the images of the document to be scanned, column 3, lines 37-40) distinct from the finishing instruction (one is job content, image of document, column 3, line 39, and one is finishing instructions on the control sheet, column 3, line 38); and generating a marker (machine readable set up instructions, column 3, lines 20-30, or human readable indicia correspond to the set up instructions of a control sheet, column 3, lines 30-35) representing at least one of the desired finishing instructions (the setup instructions in the control sheet, column 2, lines 1-6; the set up instructions are used to set up the reproduction apparatus for carrying out specific functions for the print job; e.g., stapling), the marker being placed on an output media (receiver sheet, column 3, lines 20-30).

Ojha does not teach the marker being placed on the same output media as the job content.

Kurogane, in the same area of using a control sheet for controlling a print job, teaches an individual control sheet/output media (e.g., fig. 2) comprise a print area (the

whole control sheet is a print area, fig. 2) for printing detection marks (column 4, lines 64-69, column 5, lines 1-10) and a job content (e.g., 223, fig. 4) wherein the job content is being a portion of a print job which is to be printed on one or more individual sheet of output media (e.g., message ABCD is to be printed on 230a and 230b, fig. 5, column 6, lines 35-46). The detection marks are machine readable marks containing information.

Since Ojha teaches to place machine readable marks containing set up instruction information on a control sheet (column 3, lines 20-25), it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method to include: the marker being placed on the same output media as the job content.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Ojha's control sheet producing method by the teaching of Kurogane because of the following reasons: (a) it would have reduced the cost for processing print jobs, as a whole, by using less output media-especially if the print job requires a lot of control sheet, or there are a lot of print jobs to be processed; and (b) it would speed up the print job process by scanning less output media/papers of the control sheets and the documents.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

February 24, 2004